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| 09/743,849      | 03/08/2001  | Masao Komai          | KOMAI-4             | 8746             |

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EXAMINER

AHMED, SHEEBA

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1773

DATE MAILED: 12/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/743,849

Applicant(s)

KOMAI ET AL.

Examiner

Sheeba Ahmed

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. Amendments to claims 9 and 10 have been entered in the above-identified application. New claims 22 and 23 have been added. **Claims 9-23 are now pending.**

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### *Claim Rejections - 35 USC § 112*

2. Claims 9-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The language of independent claim 9 is still ambiguous. For example, Claim 9, lines 6 states that "the sheet is treated with an anodic treatment in acid solution, wherein the composition of the acid solution is the same as a bath composition of the galvanized alloy plating bath wherein the at least one surface of the galvanized alloy steel sheet is blackened...". The above recitation is unclear – is the galvanized alloy plated layer treated with an anodic treatment or is the galvanized alloy plating layer formed by an anodic treatment? Similar ambiguities exist in independent claim 10.

**Claim Rejections - 35 USC § 102**

3. Claims 9-12, 15-17, 22, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Saitou et al. (US 5,032,236).

Saitou et al. disclose a process for producing a surface blackened steel sheet **(corresponding to the resin coated steel sheet of the claimed invention)** wherein a galvanized (i.e., Zn plated) steel sheet may be used to blacken the surface (Column 1, lines 7-10 and 42-52). The process entails using a plated steel sheet as a cathode in an acidic solution containing zinc ion, and at least one of iron, cobalt, or nickel ion amongst the other ions listed in Column 2, lines 57-68 **(corresponding to the treatment in acid solution as recited in claims 9 and 10 and meeting the limitations of claims 22 and 23)**, and subsequently applying a chromate treatment, if required, and coating with a guard coat (Column 3, lines 1-5). The guard coat includes a resin film or a composite resin film. The resin film may be an olefin acrylic resin, urethane epoxy resin, acrylic ester resin, or a urethane resin **(corresponding to the organic resin layer of the claimed invention and meeting the limitations of claim 11 and 12)** (Column 7, lines 62-69). The composite polymer film may contain silica, TEFLON powder (which is polytetrafluoroethylene powder), **(corresponding to the colloidal silica and lubricating agent of claim 10 and thus meeting the limitations of claim 15)** and a silane coupling agent **(thus meeting the limitations of claims 16 and 17)** (Column 8, lines 14-16). Tables 1-3 show that the L-value in each case is less than 30 **(thus meeting the limitation that the blackened galvanized alloy steel sheet has an L-value of equal to less than 30)**. The disclosed coated steel sheet has a distinguished

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appearance, improved workability and corrosion and scratch resistance and provides cost reduction during production (Column 3, lines 33-40). The determination of patentability for product claims containing process limitations is based on the product itself and not on the method of production. If the product is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985) and also see MPEP 2113. In this case, the product (i.e., the resin coated steel sheet) is the same despite the process limitations of using an anodic treatment to coat the galvanized alloy layer. All limitations of claims 9-12, 15-17, 22, and 23 are disclosed in the above reference.

#### ***Claim Rejections - 35 USC § 103***

4. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saitou et al. (US 5,032,236) in view of Smith et al. (US 6,136,941).

Saitou et al. disclose a process for producing a surface blackened steel sheet ***(corresponding to the resin coated steel sheet of the claimed invention)*** wherein a galvanized (i.e., Zn plated) steel sheet may be used to blacken the surface using cathodic electrolysis (Column 1, lines 7-10 and 42-52). The process entails using a plated steel sheet as a cathode in an acidic solution containing zinc ion, and at least one of iron, cobalt, or nickel ion amongst the other ions listed in Column 2, lines 57-68 and subsequently applying a chromate treatment, if required, and coating with a guard coat (Column 3, lines 1-5). The guard coat includes a resin film or a composite resin

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film. The resin film may be an olefin acrylic resin, urethane epoxy resin, acrylic ester resin, or a urethane resin (Column 7, lines 62-69). The composite polymer film may contain silica, TEFLON powder (which is polytetrafluoroethylene powder) (Column 8, lines 14-16). Tables 1-3 show that the L-value in each case is less than 30.

Saitou et al. do not specifically disclose that their urethane resin has the claimed pencil hardness, tensile strength or extension ratio, i.e., elongation.

However, Smith et al. disclose an aqueous polyurethane dispersion having a higher modulus and that may be used to coat cold rolled steel plates and having the an elongation of 290%, a tensile strength of 5800 psi, and a pencil hardness of 1H (See Tables 1-7) (***thus meeting the pencil hardness, tensile strength and extension ratio limitations of claims 13 and 14***).

Accordingly, it would have been obvious to one having ordinary skill in the art to use a urethane resin having the claimed pencil hardness, tensile strength and extension ratio, i.e., elongation, in a resin coated steel sheet given that Smith et al. teach that such a resin has a higher modulus and is desirable in coating steel sheets.

5. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishizaka et al. (US 4,550,991) in view of Saitou et al. (US 5,032,236).

Ishizaka et al. teach that film cartridges are made of steel so that when a film cartridge is loaded into a film chamber it is attracted by the permanent magnets (Column 3, lines 51-55).

Ishizaka et al. do not teach that the steel film cartridge has the claimed galvanized alloy plating, blackened surface or a resin coating.

However, Saitou et al. disclose a process for producing a surface blackened steel sheet wherein a galvanized (i.e., Zn plated) steel sheet may be used to blacken the surface using cathodic electrolysis (Column 1, lines 7-10 and 42-52). The process entails using a plated steel sheet as a cathode in an acidic solution containing zinc ion, and at least one of iron, cobalt, or nickel ion amongst the other ions listed in Column 2, lines 57-68, and subsequently applying a chromate treatment, if required, and coating with a guard coat (Column 3, lines 1-5). The guard coat includes a resin film or a composite resin film. The resin film may be an olefin acrylic resin, urethane epoxy resin, acrylic ester resin, or a urethane resin (Column 7, lines 62-69). The composite polymer film may contain silica, TEFLON powder (which is polytetrafluoroethylene powder) (Column 8, lines 14-16). Tables 1-3 show that the L-value in each case is less than 30. The disclosed coated steel sheet has a distinguished appearance, improved workability and corrosion and scratch resistance and provides cost reduction during production (Column 3, lines 33-40).

Accordingly, it would have been obvious to one having ordinary skill in the art to replace the steel sheet used to make film cartridge taught by Ishizaka et al. with the steel sheet disclosed by Saitou given that Saitou et al. specifically teach that their steel sheet has a distinguished appearance, improved workability and corrosion and scratch resistance and provides cost reduction during production.

***Response to Arguments***

6. Applicants traverse the rejection of claims 9-12 and 15-17 under 35 U.S.C. 102(b) as being anticipated by Saitou et al. (US 5,032,236), the rejection of claims 13 and 14 under 35 U.S.C. 103(a) as being unpatentable over Saitou et al. (US 5,032,236) in view of Smith et al. (US 6,136,941) and the rejection of claims 18-21 under 35 U.S.C. 103(a) as being unpatentable over Ishizaka et al. (US 4,550,991) in view of Saitou et al. (US 5,032,236) and submit that the surface of the galvanized alloy steel sheet is blackened by anodic electrolysis and that the galvanized alloy steel sheet of Saitou et al. is blackened by cathodic electrolysis and that this difference in process forms a different blackened substance on the steel sheet. The Applicants direct the Examiner's attention to the last full paragraph of the Specification of the instant application, which states that the resulting blackened surface is a hydrate oxide Zn, Co, Ni, or Mo.

However, the last full paragraph on Page 6 of the instant application states that the a surface of the steel sheet becomes dark by "forming a layer of the composite" which "mainly includes at least one kind of hydrate oxide selected from a group of Zn, Co, Ni, and Mo". It is unclear what is meant by the above recitation. Furthermore, the Applicants have failed to show that the difference in process results in a blackened layer having a different composition given that the composition of the plating bath in each instance is the same.

Hence the above rejections are maintained.



***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheeba Ahmed whose telephone number is (703)305-0594. The examiner can normally be reached on Mondays and Thursdays from 8am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on (703)308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are

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(703)305-5408 for regular communications and (703)305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-5665.



Sheeba Ahmed  
Art Unit 1773  
December 18, 2003



Paul Thibodeau  
Supervisory Patent Examiner  
Technology Center 1700